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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,224	08/28/2001	Doug Zatezalo	VI/99-016.C	5672

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GREGORY L BRADLEY
MEDRAD INC
ONE MEDRAD DRIVE
INDIANOLA, PA 15051

EXAMINER

LIN, JEYUHU

ART UNIT PAPER NUMBER

3737

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,224

Applicant(s)

ZATEZALO ET AL.

Examiner

Jeoyuh Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 28, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-33 is/are allowed.
- 6) ☒ Claim(s) 1-30 and 34-38 is/are rejected.
- 7) ☒ Claim(s) 39-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 4, 9, 17, 26, 31, 34, and 39 are objected to because of the following informalities:

-In claims 4, 31, 34, 39, the term, "flowrate" should be spelled, "flow rate".

-In claims 9, 17, 26 claim "each phase" implies more than 1 phase. However, claim 6 only establishes one phase.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-30 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans III et al. (US 6,442,418)

Evans teaches a fluid injector apparatus comprising a drive mechanism in the form of a metering pump, (Column 4, lines 30-35) and a control device. (Column 5, lines 64-67) Evans further discloses a flushing phase and a contrast phase. (Column 6, lines 40-50). Evans fails to specifically teach having a flushing phase as a first phase. However, in column 6, lines 53-60, Evans does teach flushing the fluid path before actual contrast injection in order to prime the fluid path and remove all air from the path. It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to interpret such a step as a "flushing phase" and to apply the flushing phase step in order to cut cost and prevent wasting the contrast agent. Having established the first flushing phase before contrast injection, Evans further teaches the following:

- A subsequent flushing phase (Column 6, lines 48), as claim 2 teaches in order to further conserve the contrast agent.

- Two containers, one holding flushing fluid, the other with contrast, and a syringe, (Column 5, line 60) as claims 11-13, 19-21, and 28-30 teach. (Column 3, lines 33-55)

- Defining parameters for the phases, such as the duration, (understood to be similar to a delay) flow rate and the volume of fluid to deliver as claims 3, 4, 8, 9, 16, 17, 25, 26, and 36 teach (Column 6, lines 7-13 and lines 30-32)

Evans does fail to teach a touch screen, as claims 5, 37, and 38 disclose.

However, it does teach an electronic interface, (Column 6, lines 23) which includes a touch screen. In the medical imaging art, it is well known to one having ordinary skill in the art at the time the invention was made that a touch screen may be used to simplify input of data, and would be an obvious matter of design choice. Claim 10, 18, and 27 would have established two consecutive flushing phases, which would have been substantially similar to having one long flushing phase. Independent claims 1, 6, 14, differ in their various scope of the claims, differentiated by the extended use means plus function language in claim 1, as well as the use of the broad term, "establish" in claim 1 as opposed to "program" in claim 6, use of the term, "arrangement" in claim 22 and various inclusion and exclusion of procedural steps. Method claim 34 comprises steps

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that closely follow the operation of the claimed apparatus. Otherwise, the claims are substantially similar.

Allowable Subject Matter

4. Claims 31-33 are allowed.
5. Claims 39-41 allowable, pending the correction of the object independent claim 39.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Prince (US 5,799,649) teaches a method of imaging the aorta, comprising establishing a contrast phase followed by a flushing phase to deliver all the contrast agent in the tubing. However, it fails to teach establishing a first phase as the flushing phase.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeoyuh Lin whose telephone number is (703) 306-5990. The examiner can normally be reached on m-f, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (703) 308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0758 for regular communications and (703) 308-0758 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

JYL

JYL

July 25, 2003


George Manuel
Primary F